Figure 1A

```
>1864683     GGGGCTGTAC CAGGGCGTGC CCAGAGCTGA GCCGGGCACC GAGGCCCGGA
>1711346             AC CAGGGCGTGC CCAGAGCTGA GCCGGGCACC GAGGCCCGGA
>1711346             AC CAGGGCGTGC CCAGAGCTGA GCCGGGCACC GAGGCCCGGA
Consensus    GGGGCTGTAC CAGGGCGTGC CCAGAGCTGA GCCGGGCACC GAGGCCCGGA


>1864683     GACACTATGA TGAAGGCGTT CGGATGGGCA GCCTGGGGCT GTTCCTGCAG
>1711346     GACACTATGA TGAAGGCGTT CGGATGGGCA GCCTGGGGCT GTTCCTGCAG
>1711346     GACACTATGA TGAAGGCGTT CGGATGGGCA GCCTGGGGCT GTTCCTGCAG
Consensus    GACACTATGA TGAAGGCGTT CGGATGGGCA GCCTGGGGCT GTTCCTGCAG


>1864683     TGCGCCATCT CCCTGGTCTT CTCTCTGGTC ATGGACCGGC TGGTGCAGCG
>1711346     TGCGCCATCT CCCTGGTCTT CTCTCTGGTC ATGGACCGGC TGGTGCAGCG
>1711346     TGCGCCATCT CCCTGGTCTT CTCTCTGGTC ATGGACCGGC TGGTGCAGCG
Consensus    TGCGCCATCT CCCTGGTCTT CTCTCTGGTC ATGGACCGGC TGGTGCAGCG


>1864683     ATTCGGCACT CGAGCAGTCT ATTTGGCCAG TGTGGCAGCT TTCCCTGTGG
>1711346     ATTCGGCACT CGAGCAGTCT ATTTGGCCAG TGTGGCAGCT TTCCCTGTGG
>1711346     ATTCGGCACT CGAGCAGTCT ATTTGGCCAG TGTGGCAGCT TTCCCTGTGG
Consensus    ATTCGGCACT CGAGCAGTCT ATTTGGCCAG TGTGGCAGCT TTCCCTGTGG


>1864683     CTGCCGGTGC CACATGCCTG TCCCACAGTG TGGCCGTGGT GACAGCTTCA
>1711346     CTGCCGGTGC CACATGCCTG TCCCA
>1711346     CTGCCGGTGC CACATGCCTG TCCCACAGTG TGGCCGTGGT GACAGCTTCA
>1913982                                                  GACAGCTTCA
Consensus    CTGCCGGTGC CACATGCCTG TCCCACAGTG TGGCCGTGGT GACAGCTTCA


>1864683     GCCGCCTT
>1711346     GCCGCCCTCA CCGGGTTCAC CTTCTCAGCC CTGCAGATCC TGCCCTACAC
>1913982     GCCGCCCTCA CCGGGTTCAC CTTCTCAGCC CTGCAGATCC TGCCCTACAC
Consensus    GCCGCCCTCA CCGGGTTCAC CTTCTCAGCC CTGCAGATCC TGCCCTACAC


>1711346     ACTGGCCTCC CTCTACCACC GGGAGAAGCA GGTGTTCCTG CCCAAATACC
>1913982     ACTGGCCTCC CTCTACCACC GGGAGAAGCA GGTGTTCCTG CCCAAATACC
Consensus    ACTGGCCTCC CTCTACCACC GGGAGAAGCA GGTGTTCCTG CCCAAATACC


>1711346     GAGGGGACAC TGGAGGTGCT AGCAGTGAGG ACAGCCTGAT GACCAGCTTC
>1913982     GAGGGGACAC TGGAGGTGCT AGCAGTGAGG ACAGCCTGAT GACCAGCTTC
Consensus    GAGGGGACAC TGGAGGTGCT AGCAGTGAGG ACAGCCTGAT GACCAGCTTC


>1711346     CTGCCAGGCC CTAAGCCTGG AGCTCCCTTC CCTAATGGAC ACGTGGGTGC
>1913982     CTGCCAGGCC CTAAGCCTGG AGCTCCCTTC CCTAATGGAC ACGTGGGTGC
>825779                            GCTCCCTTC CCTAATGGAC ACGTGGGTGC
Consensus    CTGCCAGGCC CTAAGCCTGG AGCTCCCTTC CCTAATGGAC ACGTGGGTGC


>1711346     TGGAGGCAGT GGCCTGCTCC CACCTCCACC CGCGCTCTGC GGGGCCTCTG
>1913982     TGGANGCAGT GGCCTGCTCC CACCTCCACC CGCGCTCTGC GGGGC
>825779      TGGAGGCAGT GGCCTGCTCC CACCTCCACC CGCGCTCTGC GGGGCCTCTG
Consensus    TGGAGGCAGT GGCCTGCTCC CACCTCCACC CGCGCTCTGC GGGGCCTCTG
```

Figure 1B

```
>1711346       CCTGTGATGT CTCCGTACGT GTGGTGGTGG GTGAGCCCAC CGAGGCCAGG
>825779        CCTGTGATGT CTCCGTACGT GTGGTGGTGG GTGAGCCCAC CGAGGCCAGG
Consensus      CCTGTGATGT CTCCGTACGT GTGGTGGTGG GTGAGCCCAC CGAGGCCAGG

>1711346       GTGGTTCCGG GCCGGGGCAT CTGCCTGGAC CTCGCCATCC TGGATAGTGC
>825779        GTGGTTCCGG GCCGGGGCAT CTGCCTGGAC CTCGCCATCC TGGATAGTGC
>2626650                                                   TGGATAGTGC
Consensus      GTGGTTCCGG GCCGGGGCAT CTGCCTGGAC CTCGCCATCC TGGATAGTGC

>1711346       CTTCCTGCTG TCCCAGGTGG CCCCATCCCT GTTTATGGGC TCCATTGTCC
>825779        CTTCCTGCTG TCCCAGGTGG CCCCATCCCT GTTTATGGGC TCCATTGTCC
>2626650       CTTCCTGCTG TCCCAGGTGG CCCCATCCCT GTTTATGGGC TCCATTGTCC
Consensus      CTTCCTGCTG TCCCAGGTGG CCCCATCCCT GTTTATGGGC TCCATTGTCC

>1711346       AGCTCAGCCA GTCTGTCACT GCCTATATGG TGTCTGCCGC AGGCCTGGGT
>825779        AGCTCAGCCA GTCTGTCA
>2626650       AGCTCAGCCA GTCTGTCACT GCCTATATGG TGTCTGCCGC AGGC:TGGGT
Consensus      AGCTCAGCCA GTCTGTCACT GCCTATATGG TGTCTGCCGC AGGCCTGGGT

>1711346       CTGGTCGCCA TTTACTTTGC TACACAGGTA GTATTTGACA AGAGCGACTT
>2626650       CTGGTCGCCA TTTACTTTGC TACACAGGTA GTATTTGACA AGAGCGACTT
>1808389                                                          CTT
Consensus      CTGGTCGCCA TTTACTTTGC TACACAGGTA GTATTTGACA AGAGCGACTT

>1711346       GGCCAAATAC TCAGCGTAGA AAACTTCCAG CACATTGGGG TGGAGGGCCT
>2626650       GGCCAAATAC TCAGCGTAGA AAACTTCCAG CACATTGGGG TGGAGGGCCT
>1808389       GGCCAAATAC TCAGCGTAGA AAACTTCCAG CACATTGGGG TGGAGGGCCT
Consensus      GGCCAAATAC TCAGCGTAGA AAACTTCCAG CACATTGGGG TGGAGGGCCT

>1711346       GCCTCACTGG GTCCCAGCTC CCCGCTCCTG TTAGCCCCAT GGGGCTGCCG
>2626650       GCCTCACTGG GTCCCAGCTC CC
>1808389       GCCTCACTGG GTCCCAGCTC CCCGCTCCTG TTAGCCCCAT GGGGCTGCCG
Consensus      GCCTCACTGG GTCCCAGCTC CCCGCTCCTG TTAGCCCCAT GGGGCTGCCG

>1711346       GGCTGGCCGC CAGTTTCTGT TGCTGCCAAA GTAATGTGGC TCTCTGCTGC
>1808389       GGCTGGCCGC CAGTTTCTGT TGCTGCCAAA GTAATGTGGC TCTCTGCTGC
>1651121              GC CAGTTTCTGT TGCTGCCAAA GTAATGTGGC TCTCTGCTGC
Consensus      GGCTGGCCGC CAGTTTCTGT TGCTGCCAAA GTAATGTGGC TCTCTGCTGC

>1711346       CACCCTGTGC TGCTGAGGTG CGTAGCTGCA CAGCTGGGGG CTGGGGCGTC
>1808389       CACCCTGTGC TGCTGAGGTG CGTAN:TGCA CAGCTGGGGG CTG
>1651121       CACCCTGTGC TGCTGAGGTG CGTAN:TGCA CAGCTGGGGG CTGGGGCGTC
Consensus      CACCCTGTGC TGCTGAGGTG CGTAG:TGCA CAGCTGGGGG CTGGGGCGTC

>1711346       CCTCTCCTCT CTCCCCAGTC TCTAGGGCTG CCTGACTGGA GGCCTTCCAA
>1651121       CCTCTCCTCT CTCCCCAGTC TCTAGGGCTG CCTGACTGGA GGCCTTCCAA
Consensus      CCTCTCCTCT CTCCCCAGTC TCTAGGGCTG CCTGACTGGA GGCCTTCCAA
```

Figure 1C

```
>1711346        GGGGGTTTCA GTCTGGACTT ATACAGGGAG GCCAGAAGGG CTCCATGCAC
>1651121        GGGGGTTTCA GTCTGGACTT ATACAGGGAG GCCAGAAGGG CTCCATGCAC
>3520833                                        GCCAGAAGGG CTCCATGCAC
Consensus       GGGGGTTTCA GTCTGGACTT ATACAGGGAG GCCAGAAGGG CTCCATGCAC


>1711346        TGGAATGCGG GGACTCTGCA GGTGGATTAC CCAGGCTCAG GGTTAACAGC
>1651121        TGGAATGCGG GGACTCTGCA GGTGGATTAC NC
>3520833        TGGAATGCGG GGACTCTGCA GGTGGATTAC CCAGGCTCAG GGTTAACAGC
Consensus       TGGAATGCGG GGACTCTGCA GGTGGATTAC CCAGGCTCAG GGTTAACAGC


>1711346        TAGCCTCCTA GTTGAGACAC ACCTAGAGAA GGGTTTTTGG GAGCTGAATA
>3520833        TAGCCTCCTA GTTGAGACAC ACCTAGAGAA GGGTTTTTGG GAGCTGAATA
Consensus       TAGCCTCCTA GTTGAGACAC ACCTAGAGAA GGGTTTTTGG GAGCTGAATA


>1711346        AACTCAGTCA CCTGGTTTCC CATCTCTAAG CCCCTTAACC TGCAGCTTCG
>3520833        AACTCAGTCA CCTGGTTTCC CATCTCTAAG CCCCTTAACC TGCAGCTTCG
Consensus       AACTCAGTCA CCTGGTTTCC CATCTCTAAG·CCCCTTAACC TGCAGCTTCG


>1711346        TTTAATGTAG CTCTTGCATG GGAGTTTCTA GGATGAAACA CTCCTCCATG
>3520833        TTTAATGTAG CTCTTGCATG GGAGTTTCTA GGATGAAACA CTCCTCCATG
Consensus       TTTAATGTAG CTCTTGCATG GGAGTTTCTA GGATGAAACA CTCCTCCATG


>1711346        GGATTTGAAC ATATGAAAGT TATTTGTAGG GGAAGAGTCC TGAGGGGCAA
>3520833        GGATTTGAAC ATATGAAAGT TATTTGTAGG GGAAGAGTCC TGAGGGGCAA
>2188949                                     GG GGAAGAGTCC TGAGGGGCAA
Consensus       GGATTTGAAC ATATGAAAGT TATTTGTAGG GGAAGAGTCC TGAGGGGCAA


>1711346        CACACAAGAA CCAGGTCCCC TCAGCCCACA GCACTGTCTT TTTGCTGATC
>3520833        CACACAAGAA CCAGGTCCCC TCAGCCCACA GCACTGTCTT TTTGCTGATC
>2188949        CACACAAGAA CCAGGTCCCC TCAGCCCACA GCACTGTCTT TTTGCTGATC
Consensus       CACACAAGAA CCAGGTCCCC TCAGCCCACA GCACTGTCTT TTTGCTGATC


>1711346        CACCCCCCTC TTACCTTTTA TCAGGATGTG GCCTGTTGGT CCTTCTGTTG
>3520833        CANCCCCCTC TTAC:TTTTA TCA
>2188949        CACCCCCCTC TTACCTTTTA TCAGGATGTG GCCTGTTGGT CCTTCTGTTG
>3497504               CTC TTACCTTTTA TCAGGATGTG GCCTGTTGGT CCTTCTGTTG
Consensus       CACCCCCCTC TTACCTTTTA TCAGGATGTG GCCTGTTGGT CCTTCTGTTG


>1711346      ⁄ CCATCACAGA GACACAGGCA TTTAAATATT TAACTTATTT ATTTAACAAA
>2188949        CCATCACAGA GACACAGGCA TTTAAATATT TAACTTATTT ATTTAACAAA
>3497504        CCATCACAGA GACACAGGCA TTTAAATATT TAACTTATTT ATTTAACAAA
Consensus       CCATCACAGA GACACAGGCA TTTAAATATT TAACTTATTT ATTTAACAAA


>1711346        GTAGAAGGGA ATCCATTGCT AGCTTTTCTG TGTTGGTGTC TAATATTTGG
>2188949        GTAGAAGGGA ATCCATTGCT AGCTTTTCTG TGTTGGTGTC TAATATTTGG
>3497504        GTAGAAGGGA ATCCATTGCT AGCTTTTCTG TGTTGGTGTC TAATATTTGG
Consensus       GTAGAAGGGA ATCCATTGCT AGCTTTTCTG TGTTGGTGTC TAATATTTGG
```

Figure 1D

```
>1711346      GTAGGGTGGG GGATCCCCAA CAATCAGGTC CCCTGAGATA GCTGGTCATT
>2188949      GTAGGGTGGG GGATCCCCAA CAATCAGGTC CCCTGAGATA GCT
>3497504      GTANGGTGGG GGATCCCCAA CAATCAGGTC CCCTGAGATA GCTGGTCATT
Consensus     GTAGGGTGGG GGATCCCCAA CAATCAGGTC CCCTGAGATA GCTGGTCATT

>1711346      GGGCTGATCA TTGCCAGAAT CTTCTTCTCC TGGGGTCTGG CCCCCCAAAA
>3497504      GGGCTGATCA TTGCCAGAAT CTTCTTCTCC TGGGGTCTGG CCCCCCAAAA
Consensus     GGGCTGATCA TTGCCAGAAT CTTCTTCTCC TGGGGTCTGG CCCCCCAAAA

>1711346      TGCCTAACCC AGGACCTTGG AAATTCTACT CATCCCAAAT GATAATTCCA
>3497504      TGCCTAACCC AGGACCTTGG AAATTCTACT CATCCCAAAT GATAA
>3964174                            AAATTCTACT CATCCCAAAT GATAATTCCA
Consensus     TGCCTAACCC AGGACCTTGG AAATTCTACT CATCCCAAAT GATAATTCCA

>1711346      AATGCTGTTA CCCAAGGTTA GGGTGTTGAA GGAAGGTAGA GGGTGGGGCT
>3964174      AATGCTGTTA CCCAAGGTTA GGGTGTTGAA GGAAGGTAGA GGGTGGGGCT
Consensus     AATGCTGTTA CCCAAGGTTA GGGTGTTGAA GGAAGGTAGA GGGTGGGGCT

>1711346      TCAGGTCTCA ACGGCTTCCC TAACCACCCC TCTTCTCTTG GCCCAGCCTG
>3964174      TCAGGTCTCA ACGGCTTCCC TAACCACCCC TCTTCTCTTG GCCCAGCCTG
Consensus     TCAGGTCTCA ACGGCTTCCC TAACCACCCC TCTTCTCTTG GCCCAGCCTG

>1711346      GTTCCCCCCA CTTCCACTCC CCTCTACTCT CTCTAGGACT GGGCTGATGA
>3964174      GTTCCCCCCA CTTCCACTCC CCTCTACTCT CTCTAGGACT GGGCTGATGA
>3705332                                                          A
Consensus     GTTCCCCCCA CTTCCACTCC CCTCTACTCT CTCTAGGACT GGGCTGATGA

>1711346      AGGCACTGCC CAAAATTTCC CCTACCCCCA ACTTTCCCCT ACCCCCAACT
>3964174      AGGCACTGCC CAAAATTTCC CCTACCCCCA ACTTTNCCCT ACCCCCAACT
>3705332      AGGCACTGCC CAAAATNNCC CCTACCCCCA ACTTTCCCCT ACCCCCAACT
Consensus     AGGCACTGCC CAAAATTTCC CCTACCCCCA ACTTTCCCCT ACCCCCAACT

>1711346      TTCCCCACCA GCTCCACAAC CCTGTTTGGA GCTACTGCAG GACCAGAAGC
>3964174      TTCCCCACCA GCTCCACAAC CCTGTTTGGA GCTACTGCAG GT
>3705332      TTCCCCACCA GCTCCACAAC CCTGTTTGGA GCTACTGCAG GACCAGAAGC
>2270646                 CTCCACAAC CCTGTTTGGA GCTACTGCAG GACCAGAAGC
Consensus     TTCCCCACCA GCTCCACAAC CCTGTTTGGA GCTACTGCAG GACCAGAAGC

>1711346      ACAAAGTGCG GTTTCCCAAG CCTTTGTCCA TCTCAGCCCC CAGAGTATAT
>3705332      ACAAAGTGCG GTTTCCCAAG CCTTTGTCCA TCTCAGCCCC CAGAGTATAT
>2270646      ACAAAGTGCG GTTTCCCAAG CCTTTGTCCA TCTCAGCCCC CAGAGTATAT
>1810610                                                    CC CAGAGTATAT
Consensus     ACAAAGTGCG GTTTCCCAAG CCTTTGTCCA TCTCAGCCCC CAGAGTATAT

>1711346      CTGTGCTTGG GGAATCTCAC ACAGAAACTC AGGAGCACCC CCTGCCTGAG
>3705332      CTGTGCTTGG GGAATCTCAC ACAGAAACTC AGGAGCACCC CCTGCNTGAG
>2270646      CTGTGCTTGG GGAATCTCAC ACANAAACTC AGGAGCACCC CCTGCCTGAG
>1810610      CTGTGCTTGG GGAATCTCAC ACAGAAACTC AGGAGCACCC CCTGCCTGAG
Consensus     CTGTGCTTGG GGAATCTCAC ACAGAAACTC AGGAGCACCC CCTGCCTGAG
```

Figure 1E

```
>1711346      CTAAGGGAGG  TCTTATCTCT  CAGGGGGGGT  TTAAGTGCCG  TTTGCAATAA
>3705332      CTAAGGGAGG  TCTTATCTCT  CAGGGGGGGT  TTAAGTGCCG  TTTGCAATAA
>2270646      CTAAGGGNGG  TC
>1810610      CTAAGGGAGG  TCTTATCTCT  CAGGGGGGGT  TTAAGTGCCG  TTTGCAATAA
Consensus     CTAAGGGAGG  TCTTATCTCT  CAGGGGGGGT  TTAAGTGCCG  TTTGCAATAA

>1711346      TGTCGTCTTA  TTTTTTTAGC  GGGGTGAATA  TTTTATACTG  TAAGTGAGCA
>3705332      TGTCGTCTTA  TTTATTTAGC  GGGGTGAATA  TTTTATACTG  TAA
>1810610      TGTCGTCTTA  TTTATTTAGC  GGGGTGAATA  TTTTATACTG  TAAGTGAGCA
Consensus     TGTCGTCTTA  TTTATTTAGC  GGGGTGAATA  TTTTATACTG  TAAGTGAGCA

>1711346      ATCAGAGTAT  AATGTTTATG  GTGACAAAAT  TAAAGGCTTT  CTTATATGTT
>1810610      ATCAGAGTAT  AATGTTTATG  GTGACAAAAT  TAAAGGCTTT  CTTATATGTT
Consensus     ATCAGAGTAT  AATGTTTATG  GTGACAAAAT  TAAAGGCTTT  CTTATATGTT

>1711346      TA
>1810610      T
Consensus     TA
```
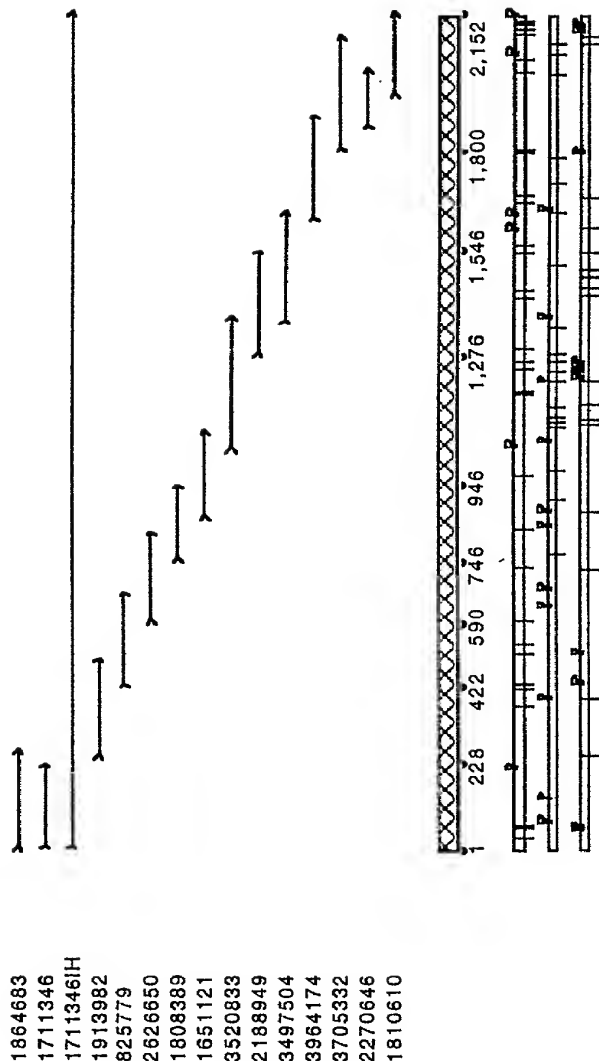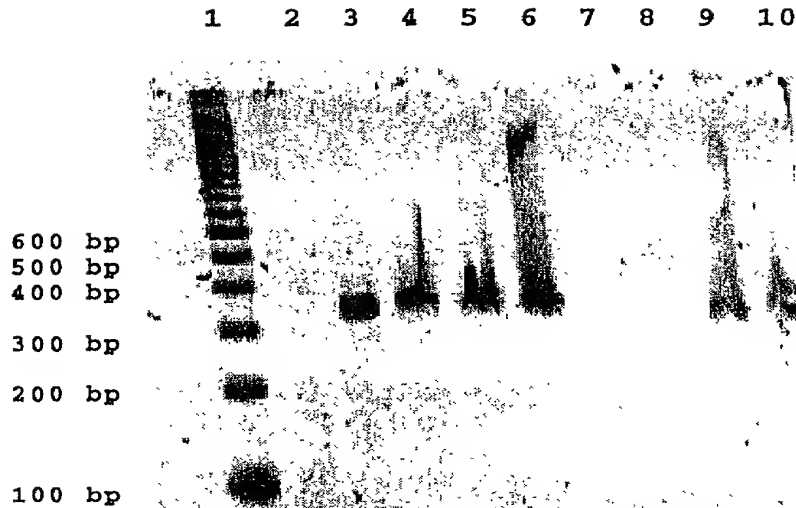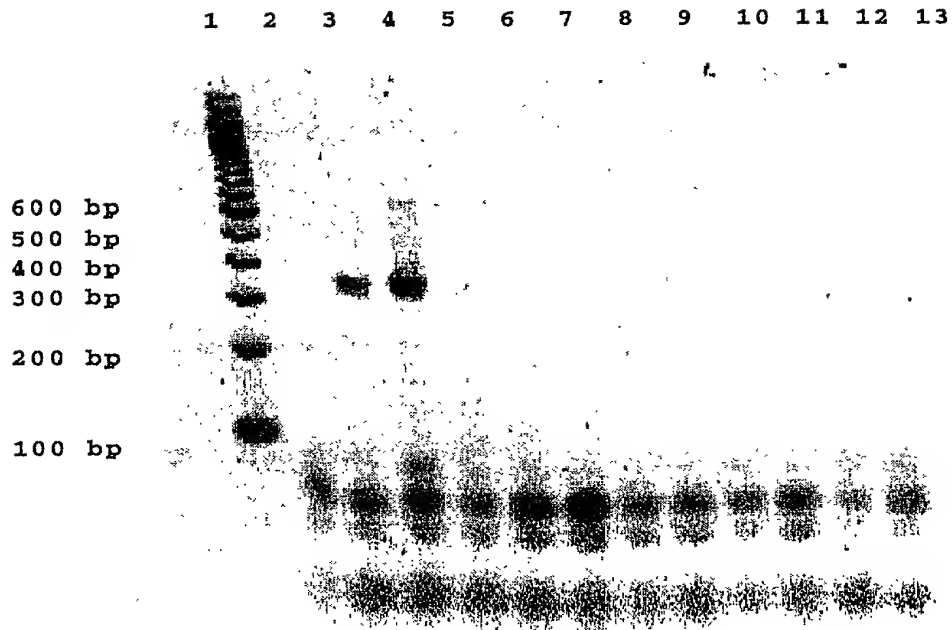
Figure 2

1864683
1711346
1711346IH
1913982
825779
2626650
1808389
1651121
3520833
2188949
3497504
3964174
3705332
2270646
1810610

Figure 3A

1   2   3   4   5   6   7   8   9   10

600 bp
500 bp
400 bp

300 bp

200 bp

100 bp

Lane	Tissue	Lane	Tissue
1	100 bp DNA Marker	6	Prostate BPH
2	Placental DNA	7	Prostate Cancer
3	Prostate BPH	8	Prostate Cancer
4	Prostate BPH	9	Prostate Cancer
5	Prostate Cancer	10	Prostate BPH Diluted duplicate of Lane 6

Figure 3B

Lane	Tissue	Lane	Tissue
1	100 bp DNA Marker	8	Breast Cancer
2	Placental DNA	9	Breast Cancer
3	Prostate BPH	10	Normal Breast
4	Prostate Cancer	11	Normal Lung
5	Colon Cancer	12	Normal Lung
6	Colon Cancer	13	Lung Cancer
7	Normal Colon		

Figure 4
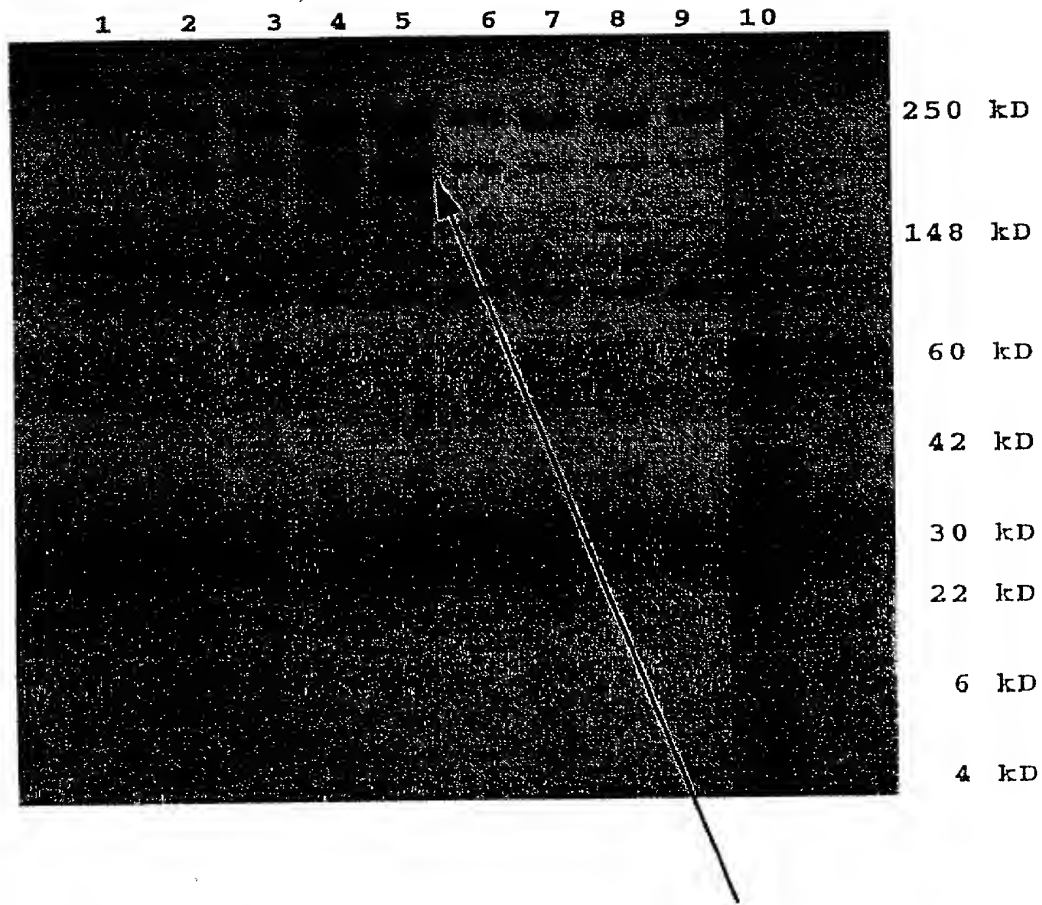
Lane	Tissue	Lane	Tissue
1	Colon Cancer	6	Normal Lung
2	BPH	7	Normal Lung
3	BPH	8	Breast Cancer
4	BPH	9	Breast Cancer
5	Prostate Cancer	10	Mol Wt Markers